Screening all pregnant women admitted to labor and delivery for the virus responsible for coronavirus disease 2019

TO THE EDITORS: We read with great interest the study of Vintzileos et al and their call for universal obstetrical coronavirus disease 2019 (COVID-19) screening to conserve limited personal protective equipment (PPE) and to allow appropriate triage, adequate obstetrical and neonatal management, and safe patient transport in overcrowded hospitals.1 However, we disagree with their call for universal COVID-19 testing of asymptomatic pregnant women, rather we suggest continued adherence to the public health guidelines for COVID-19 diagnostic testing.2,3 The COVID-19 test is extremely specific because it identifies the viral RNA to which the individual has been exposed during the preceding 21 days. The viral load peaks between 7 to 10 days after onset of symptoms and declines throughout the next 3 weeks. Detection is performed by the highly specific (96% specificity) polymerase chain reaction.4 The false-negative test rates for this test range from 30% to 3% in asymptomatic and symptomatic populations, respectively.4 A positive COVID-19
test result provides no information regarding the individual’s current or future ability to transmit the virus. We therefore recommend continued use of universal PPE during testing, limited to diagnosis in disease management, and as the foundation of a contact public health tracing program. We ask the authors whether there was any difference in the temperature upon admission between women who received positive test results for COVID-19 and women who received negative test results for COVID-19.

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This communication has been published in the middle of the COVID-19 pandemic and is available via expedited publication to assist patients and healthcare providers.

REFERENCES

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REPLY

We would like to thank Dr Henderson et al for their interest in our article and for raising some interesting points. Dr Henderson et al disagree with our proposal for universal coronavirus disease 2019 (COVID-19) testing of women admitted to labor and delivery. To support their position, they cited the Centers for Disease Control and Prevention (CDC) report produced in the early stages of the COVID-19 pandemic. However, at that time, testing capacity was limited, and the degree of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) transmission from asymptomatic patients was uncertain. In addition, the CDC guidelines on testing were not exclusive to symptomatic individuals; furthermore, the guidelines left the decision for testing to “state and local health departments or healthcare providers.”

By the end of March 2020, testing capacity using rapid and accurate real-time polymerase chain reaction testing increased nationwide. At the same time, various reports, including recent studies cited by the CDC, suggested widespread viral transmission by both presymptomatic and asymptomatic patients who received positive test results for COVID-19. We feel substantiated by these more recent findings that found strong epidemiologic evidence for transmission of the SARS-CoV-2 from presymptomatic and asymptomatic patients.

The aforementioned data, in conjunction with our study’s finding that 66% of pregnant women who received positive test results for COVID-19 are asymptomatic, strongly support the logic of universal testing for SARS-CoV-2 among obstetrical patients admitted to the hospital.

The authors’ second point about viral load peaking between 7 and 10 days after the onset of symptoms and declining in the next 3 weeks pertains to a study about symptomatic patients, whereas the main focus of our study was the detection and prevention of viral spread and transmission among presymptomatic and asymptomatic patients. The authors’ third point about a 30% false-negative rate in asymptomatic patients who received positive test results for COVID-19 could not be verified in their cited reference.

Finally, the authors’ fourth point about temperature differences between mothers who received positive test results for COVID-19 and mothers who received negative test results for COVID-19 is not relevant because the main purpose of universal testing is not to detect symptomatic patients but to identify asymptomatic patients who may be transmitting the virus to others.

Universal testing ensures the correct cohorting of patients, the correct use of personal protective equipment, and the correct utilization of inpatient resources if the need arises. In addition, knowing who received positive test result increases the pool of people eligible for plasma donation, which is invaluable to those who are critically ill fighting COVID-19.